

REMARKS

By this Amendment, claims 1, 7, 8, 11-13, 18, 20 and 21 have been amended to recite the claimed subject matter without the intention of narrowing any of the claims, claim 14 has been deleted without prejudice or disclaimer, and claim 24 has been added. Applicant has amended the currently pending claims in order to expedite prosecution and do not, by this amendment, intend to abandon subject matter of the claims as originally filed or later presented. Moreover, Applicant reserves the right to pursue such subject matter in a continuing application. No new matter has been added. Claims 1-13 and 15-24 are pending in this patent application. Reconsideration of the rejections in view of the remarks below is requested.

The drawings were objected to for failing to show every feature of the invention specified in the claims. In particular, the Office Action objected that the drawings fail to show a conveyor belt with at least one of a pin and a wire loop configured to support the substrate transported thereon as recited in claim 13 and a gangway set apart from the transport system configured to allow passage a distance away from the transport system as recited in claim 14. While expressly disagreeing with the objection, Applicant has amended claim 13 to merely recite a conveyor belt, which is amply shown as, for example, items 32/36 in Figures 3 and 4, and cancelled claim 14 without prejudice or disclaimer, to thereby obviate and moot the objection with respect to the drawings. Accordingly, reconsideration and withdrawal of the objection to the drawings are respectfully requested.

The Office Action rejected claim 14 under 35 U.S.C. §112, first paragraph as failing to comply with the written description requirement. While expressly disagreeing with the objection, Applicant has cancelled claim 14 thus the rejection of claim 14 under 35 U.S.C. §112, first paragraph is now moot.

The Office Action rejected claims 1, 3, 5-7, 10, 11, 15, 18, 19 and 21-23 under 35 U.S.C. §102(e) as being anticipated by U.S. patent no. 6,737,207 to Imai ("Imai"). Applicant respectfully traverses the rejection, without prejudice.

Applicant respectfully submits that the cited portions of Imai fail to disclose, teach or suggest a lithocell comprising, *inter alia*, a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus as recited in independent claim 1 and a transport system, external to the track and lithographic apparatus, configured to

transport the substrate between the track and the lithographic apparatus, the transport system comprising a robot arm pivotable about an axis at its first end and adapted to hold a substrate at its opposite end as recited in independent claim 15. Further, Applicant respectfully submits that the cited portions of Imai fail to disclose, teach or suggest a device manufacturing method using a lithocell comprising, *inter alia*, transporting the substrate to the lithographic apparatus from the track using a transporter between and external to them as recited in independent claim 21.

The Office Action points to transport line 52 of the coater-developer 51 in Imai and the arms and guide members 44/47/42/45 of the projection exposure apparatus 50 in Imai as disclosing, for example, the transport systems as recited in independent claims 1 and 15. Respectfully, Applicant disagrees. The transport line 52 is inside the track 51 and the arms and guide members 44/47/42/45 are inside the lithographic apparatus 50 - neither are outside or external to the track 51 and the lithographic apparatus 50. Thus, the cited portions of Imai fail to disclose, teach or suggest a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus as recited in claim 1 and a transport system, external to the track and lithographic apparatus, configured to transport the substrate between the track and the lithographic apparatus as recited in independent claim 15. Similarly, the cited portions of Imai fail to disclose, teach or suggest transporting the substrate to the lithographic apparatus from the track using a transporter between and external to them as recited in independent claim 21.

Rather, the cited portions of Imai teach the conventional track and lithographic apparatus configuration as described by Applicant: "Substrates are typically moved within the track and between the lithographic apparatus and the track by one or more robot arms in the track, one robot arm being capable of reaching beyond the confines of the track to, for example, the load and unload ports of the lithographic apparatus. There are also configurations in which the transfer robot is located in the lithographic apparatus instead of the track." (page 3, paragraph 5). The Office Action's position that "wafer stage 39" is the lithographic apparatus rather than "projection exposure apparatus 50" (both as quoted from Imai) is expressly contrary to the cited disclosure of Imai and would make no sense to the person skilled in the art. To such a person, projection exposure apparatus 51 is the lithographic apparatus and arms and guide members 44/47/42/45 are simply the conventional wafer handling mechanisms provided with most, if not all, lithographic apparatus.

Therefore, for at least the above reasons, the cited portions of Imai fail to disclose, teach or suggest all the features recited by independent claims 1, 15 and 21. Claims 3, 5-7, 10, and 11 depend from independent claim 1, claims 18 and 19 depend from independent claim 15, and claims 22 and 23 depend from independent claim 21, and are, therefore, patentable for at least the same reasons provided above related to respectively claims 1, 15 and 21, and for the additional features recited therein. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §102(e) of claims 1, 3, 5-7, 10, 11, 15, 18, 19 and 21-23 in view of Imai should be withdrawn and the claims allowed.

The Office Action rejected claims 1, 3, 7, 8, 10, 21 and 22 under 35 U.S.C. §102(e) as being anticipated by U.S. patent application publication no. 2005/0057733 to Owen et al. ("Owen et al."). Applicant respectfully traverses the rejection, without prejudice.

Applicant respectfully submits that the cited portions of Owen et al. fail to disclose, teach or suggest a lithocell comprising, *inter alia*, a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus as recited in independent claim 1. Further, Applicant respectfully submits that the cited portions of Owen et al. fail to disclose, teach or suggest a device manufacturing method using a lithocell comprising, *inter alia*, transporting the substrate to the lithographic apparatus from the track using a transporter between and external to them as recited in independent claim 21.

The Office Action points to interface 104a/104b in Owen et al. as disclosing, for example, the transport system as recited in independent claim 1. Respectfully, Applicant disagrees. Owen et al. fails to specify whether interface 104a/104b transports substrates (rather than acts, for example, in the case of interface 104a, as a transition space or point between the track and lithographic apparatus) or whether interface 104a/104b is external to the track and the lithographic apparatus (rather Owen et al. describes interface 104a/104b as part of the wafer track apparatus 103). Thus, the cited portions of Owen et al. fail to disclose, teach or suggest a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus as recited in claim 1. Similarly, the cited portions of Owen et al. fail to disclose, teach or suggest transporting the substrate to the lithographic apparatus from the track using a transporter between and external to them as recited in independent claim 21.

Therefore, for at least the above reasons, the cited portions of Owen et al. fail to disclose, teach or suggest all the features recited by independent claims 1 and 21. Claims 3, 7, 8, and 10 depend from independent claim 1 and claim 22 depends from independent claim 21, and are, therefore, patentable for at least the same reasons provided above related to respectively claims 1 and 21, and for the additional features recited in those dependent claims. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §102(e) of claims 1, 3, 7, 8, 10, 21 and 22 in view of Owen et al. should be withdrawn and the claims allowed.

The Office Action rejected claims 1, 3, 5-11 and 14-23 under 35 U.S.C. §103(a) as being obvious in view of U.S. patent no. 5,963,753 to Ohtani et al. ("Ohtani et al.") further in view of U.S. patent no. 6,737,207 to Imai ("Imai"). Applicant respectfully traverses the rejection, without prejudice.

As noted above, Imai fails to disclose, teach or suggest independent claims 1, 15 and 21. Claims 3, 5-11 and 14 depend from independent claim 1, claims 16-20 depend from independent claim 15 and claims 22-23 depend from independent claim 21 and are, therefore, patentable for at least the same reasons provided above regarding Ohtani et al. and Imai as related to independent claims 1, 15 and 21, respectively, and for the additional features recited in those dependent claims.

Further, the cited portions of Ohtani et al. fail to overcome the shortcomings of Imai and/or to independently disclose, teach or suggest claims 1, 3, 5-11 and 14-23. Specifically, the Office Action points to pathways 21 and 31 and a transport system including robot 22 and/or robot 32 in Ohtani et al. as disclosing, for example, the transport systems as recited in independent claims 1 and 15. Respectfully, Applicant disagrees. The pathways 21 and 31 and the transport system including robot 22 and/or robot 32 are inside the substrate processing system or track 1 and none are outside or external to the track and the exposure or lithographic apparatus 2a/2b. Thus, the cited portions of Ohtani et al., whether alone or in combination with Imai, fail to disclose, teach or suggest a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus as recited in claim 1 and a transport system, external to the track and lithographic apparatus, configured to transport the substrate between the track and the lithographic apparatus as recited in independent claim 15. Similarly, the cited portions of Ohtani et al., whether alone or in combination with Imai,

fail to disclose, teach or suggest transporting the substrate to the lithographic apparatus from the track using a transporter between and external to them as recited in independent claim 21.

Therefore, for at least the above reasons, the cited portions of Ohtani et al. and/or Imai fail to disclose, teach or suggest all the features recited by independent claims 1, 15 and 21. Claims 3 and 5-13 depend from independent claim 1, claims 16-20 depend from independent claim 15, and claims 22 and 23 depend from independent claim 21 and are, therefore, patentable for at least the same reasons provided above related to respectively claims 1, 15 and 21, and for the additional features recited in those dependent claims. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §103(a) of claims 1, 3, 5-11 and 14-23 in view of Ohtani et al. and/or Imai should be withdrawn and the claims allowed.

The Office Action rejected claim 2 under 35 U.S.C. §103(a) as being obvious in view Ohtani et al., further in view of Imai and further in view of U.S. patent no. 5,399,531 to Wu ("Wu"). Applicant respectfully traverses the rejection, without prejudice.

As noted above, Ohtani et al. and Imai fail to disclose, teach or suggest independent claim 1. Claim 2 depends from claim 1 and is, therefore, patentable for at least the same reasons provided above regarding Ohtani et al. and Imai as related to independent claim 1, and for the additional features recited in that dependent claim.

Further, the cited portions of Wu fail to overcome the shortcomings of Ohtani et al. and Imai and/or to independently disclose, teach or suggest claim 2. Specifically, the cited portions of Wu, whether alone or in combination with Ohtani et al. and Imai, fail to disclose, teach or suggest a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus as recited in claim 1. While the cited portions of Wu describe wafer transfer from a lithography area to other equipment such as etching and deposition tools, they fail to disclose, teach or suggest a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus.

Therefore, for at least the above reasons, the cited portions of Ohtani et al., Imai and/or Wu fail to disclose, teach or suggest all the features recited by claim 2. As a result, Applicant respectfully submits that the rejection under 35 U.S.C. §103(a) of claim 2 in view of Ohtani et al., Imai and/or Wu should be withdrawn and the claims allowed.

The Office Action rejected claim 4 under 35 U.S.C. §103(a) as being obvious in view Ohtani et al., further in view of Imai and further in view of U.S. patent no. 6,832,863 to

Sugimoto et al. (“Sugimoto et al.”). Applicant respectfully traverses the rejection, without prejudice.

As noted above, Ohtani et al. and Imai fail to disclose, teach or suggest independent claim 1. Claim 4 depends from claim 1 and is, therefore, patentable for at least the same reasons provided above regarding Ohtani et al. and Imai as related to independent claim 1, and for the additional features recited in that dependent claim.

Further, the cited portions of Sugimoto et al. fail to overcome the shortcomings of Ohtani et al. and Imai and/or to independently disclose, teach or suggest claim 4. Specifically, the cited portions of Sugimoto et al., whether alone or in combination with Ohtani et al. and Imai, fail to disclose, teach or suggest a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus as recited in claim 1. Sugimoto et al. describe a particular implementation of the internal workings of a substrate processing apparatus or track and fail to disclose, teach or suggest a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus.

Therefore, for at least the above reasons, the cited portions of Ohtani et al., Imai and/or Sugimoto et al. fail to disclose, teach or suggest all the features recited by claim 4. Thus, Applicant respectfully submits that the rejection under 35 U.S.C. §103(a) of claim 4 in view of Ohtani et al., Imai and/or Sugimoto et al. should be withdrawn and the claims allowed.

The Office Action rejected claim 12 under 35 U.S.C. §103(a) as being obvious in view Ohtani et al., further in view of Imai and further in view of U.S. patent no. 6,604,624 to Hirata et al. (“Hirata et al.”). Applicant respectfully traverses the rejection, without prejudice.

As noted above, Ohtani et al. and Imai fail to disclose, teach or suggest independent claim 1. Claim 12 depends from claim 1 and is, therefore, patentable for at least the same reasons provided above regarding Ohtani et al. and Imai as related to independent claim 1, and for the additional features recited in that dependent claim.

Further, the cited portions of Hirata et al. fail to overcome the shortcomings of Ohtani et al. and Imai and/or to independently disclose, teach or suggest claim 12. Specifically, the cited portions of Hirata et al., whether alone or in combination with Ohtani et al. and Imai, fail to disclose, teach or suggest a lithocell comprising, a lithographic apparatus, a track, and a transport system, outside of the lithographic apparatus and the track, configured to transport

the substrate along an elongate transporter pathway between the track and the lithographic apparatus as recited in claim 1. Hirata et al. describe a particular implementation of a wafer transport system to move wafers around a fab as is conventional in the art. This wafer transport system may move, for example, wafers between lithocells (combinations of lithographic apparatus and track). An example of such a wafer transport system is shown as automated material handling system (AMHS) 60 in Figure 4 of the Applicant's application and described in paragraph 70 on page 11 of the Applicant's specification. However, Hirata et al. fail to disclose, teach or suggest a transport system, outside of the lithographic apparatus and the track, configured to transport the substrate along an elongate transporter pathway between the track and the lithographic apparatus of the lithocell.

Therefore, for at least the above reasons, the cited portions of Ohtani et al., Imai and/or Hirata et al. fail to disclose, teach or suggest all the features recited by claim 12. Thus, Applicant respectfully submits that the rejection under 35 U.S.C. §103(a) of claim 12 in view of Ohtani et al., Imai and/or Hirata et al. should be withdrawn and the claims allowed.

New claim 24 is supported by, for example, Figure 4 and paragraph 70 of the Applicant's application. New claim 24 is patentable over the cited references because they fail to disclose claim 1 and the additional matter recited in claim 24, namely an automated material handling system configured to transport substrates to or from the lithographic apparatus or track independently from the transport system.

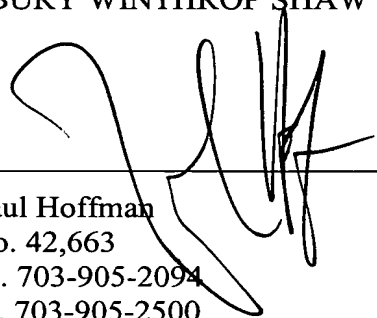
All objections and rejections having been addressed, it is respectfully submitted that the present application is in condition for allowance. If questions relating to patentability remain, the Examiner is invited to contact the undersigned to discuss them.

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Respectfully submitted,

PILLSBURY WINTHROP SHAW PITTMAN LLP



Jean-Paul Hoffman
Reg. No. 42,663
Tel. No. 703-905-2094
Fax No. 703-905-2500

JGH
P. O. Box 10500
McLean, VA 22102
(703) 905-2000